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POLYCHAETA NEW TO NEW ENGLAND, WITH
ADDITIONS TO THE DESCRIPTION OF
ABERRANTA ENIGMATICA HARTMAN¹

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Specimens of polychaete species not previously reported from New England were discovered during examination of material collected from Buzzards Bay and Cape Cod Bay, Massachusetts. This material was collected from Buzzards Bay by G. R. Hampson, by J. F. Grassle, and by D. K. Young, and from Cape Cod Bay by the staff of the Biotic Census. Additional specimens of *Aberranta enigmatica* Hartman were collected on the shelf off New England by H. L. Sanders. The material is deposited at the following locations: Smithsonian Institution (USNM), Gray Museum of the Systematics-Ecology Program (SEP), the collection of Howard L. Sanders at the Woods Hole Oceanographic Institution (HLS), and the author's collection (KDH).

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PILARGIDAE

Cabira Webster

Cabira incerta Webster

Cabira incerta Webster 1879, p. 267, figs. 155-157.—Pettibone 1966, p. 178, figs. 11-12.

Material examined: Massachusetts, Buzzards Bay, about 1 mile NW of

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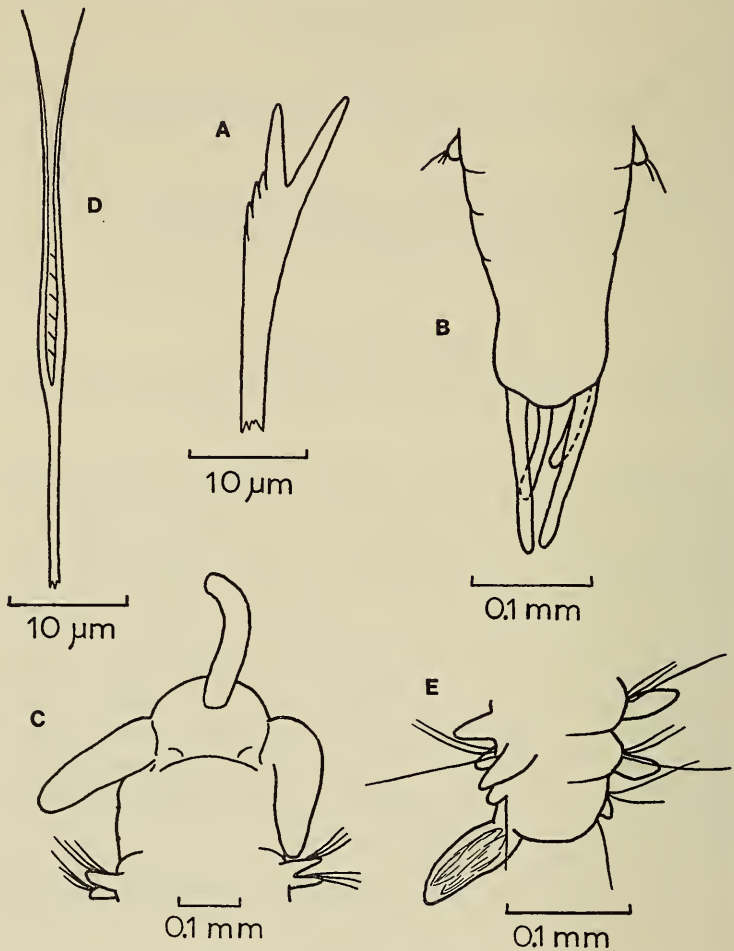


FIG. 1. *Protodorvillea gaspeensis* (USNM 43516): A, furcate seta from setiger 8; B, dorsal view of posterior end. *Aberranta enigmatica* (USNM 43519): C, posterodorsal view of anterior end; D, furcate seta from median neuropodium; E, dorsal view of pygidium slightly from left.

Quissett Harbor, sand, 14 meters, station 4, October 1968, D. K. Young, collector—1 specimen (USNM 43515).

Description: The specimen is incomplete and is about 10 mm long, 1.2 mm wide at the anterior end, and has 31 setigers. The head has one pair of small antennae, one pair of palps with a small papillar "style," and two pairs of small tentacular cirri. The boundary between the

prostomium and peristomium is well marked. There is no dorsal cirrus, but a small papilla occurs slightly ventral to and behind the hooked notoseta. The stout recurved notopodial hook first appears at setiger 7. The ventral cirrus is a small papilla. A few simple capillary setae occur in the neuropodium. The proboscis is not everted.

Distribution: Massachusetts and Virginia, in 13–14 meters.

DORVILLEIDAE

Protodorvillea Pettibone

Protodorvillea gaspeensis Pettibone

Figure 1 A, B

Protodorvillea gaspeensis Pettibone 1961, p. 178, fig. 6.

Material examined: Quebec, Gulf of St. Lawrence at Grande-Rivière, Gaspé South—holotype (USNM 30008). Massachusetts, Buzzards Bay, 41°30' N, 70°53' W, mud, 20 meters, station R, 15 July 1969, G. R. Hampson, collector—4 specimens (USNM 43516[2]; SEP 2098[1]; HLS[1]); vicinity of Wild Harbor, muddy sand, 6 meters, September and October 1969, J. F. Grassle, collector—12 specimens (HLS).

Description: Three of the specimens from Buzzards Bay are complete, up to 4.5 mm long and consisting of 26 to 30 setigers. There is no pigmentation (preserved in alcohol). The prostomium bears two short biarticulate palps and two shorter clavate antennae. The jaws are barely visible and were not dissected. Each parapodium lacks a dorsal cirrus, has a small ventral cirrus, and has three kinds of setae: (1) one to three simple capillary setae, (2) one (rarely two) simple furcate seta, (3) three compound setae. The setae of the holotype and of the Buzzards Bay specimens are as described by Pettibone (1961), except that the furcate setae are laterally serrated (Fig. 1A). The furcate setae seem to have fewer serrations in the posterior region. The pygidium has two long dorsal anal cirri and two shorter ventral anal cirri (Fig. 1B). Large yolky eggs are present in two of the specimens from station R, from setiger 12 through 24 in one specimen and from setiger 11 in the incomplete specimen.

Distribution: Gulf of St. Lawrence, Quebec and Massachusetts, intertidal to 20 meters.

PARAONIDAE

Aricidea Webster

Aricidea wassi Pettibone

Aricidea wassi Pettibone 1965, p. 135, figs. 9–11.

Material examined: Massachusetts, Cape Cod Bay, 41°48.5' N, 70°8' W, sand, 10 meters, station 2012, 11 December 1968—6 specimens (USNM 43518[3], SEP[2], KDH[1]).

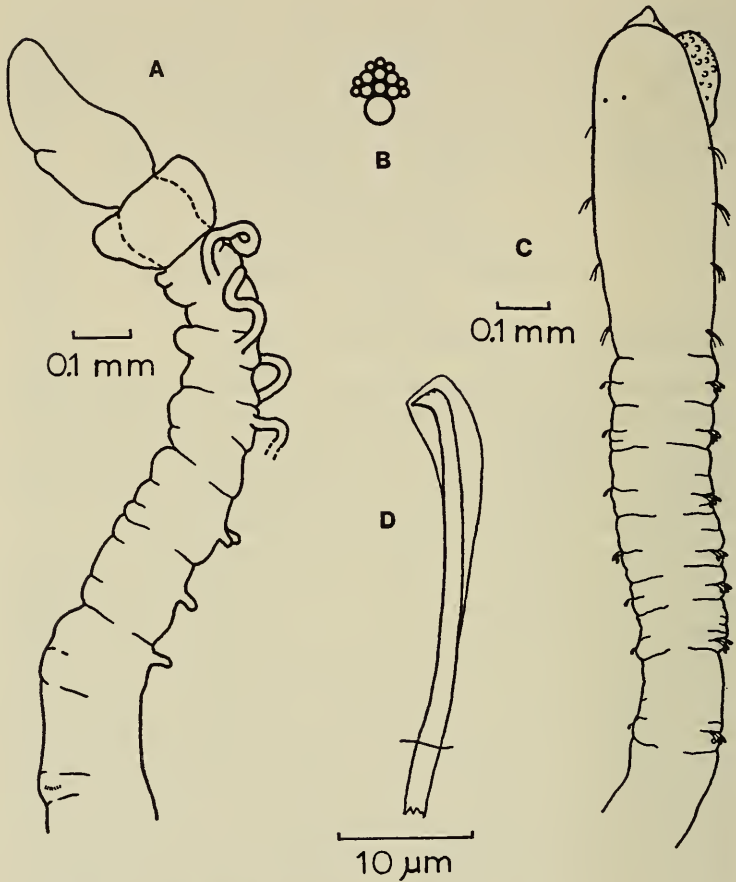


FIG. 2. *Psammodrillus balanoglossoides* (USNM 43517): A, lateral view of anterior end; B, diagrammatic frontal view of abdominal seta. *Mediomastus ambiseta* (SEP 2098): C, dorsolateral view of anterior end; D, slender hooded hook from abdominal notopodium.

Description: The specimens are small, up to 8 mm long, and are as described by Pettibone (1965). The median antenna is long, reaching as far back as setiger 4, and distinctly jointed. The branchiae begin on setiger 4, and there are 9 to 11 pairs. The notopodia have only capillary setae. The neuropodia have capillary setae; in median and posterior segments, the ventral-most capillary setae are replaced by thicker curved setae with a subterminal hairlike appendage arising from the concave side.

In both sexes, the sexual products are found in median and posterior segments, from about setiger 20-30 to about the 15th last setiger. In females, each of these segments has two large oval yolky eggs about 220 μ m in diameter. Sperm appear as opaque whitish masses.

Distribution: Massachusetts and Chesapeake Bay, in 10-40 meters.

FAMILY UNKNOWN

Aberranta Hartman

Aberranta enigmatica Hartman

Figure 1 C-E

Aberranta enigmatica Hartman 1965, p. 155, pl. 32, fig. g-h.

Material examined: Shelf off New England, 40°34' N, 70°51' W, mud, 68 meters, station 171, 28 November 1967, H. L. Sanders, collector—17 specimens (USNM 43519[8]; SEP 2099[5]; HLS[3]; KDH[1]).

Description: The following may be added to the description of *Aberranta enigmatica*. A complete specimen has 26 setigers. A smooth, slender median antenna is inserted in the middle of the prostomium and may be up to twice the length of the prostomium (Fig. 1C). The median antenna is easily lost and is present on only two of the specimens. Each neuropodium has one or two very slender furcate setae with branches of equal length (Fig. 1D). Some very faint spines arise from one (or possibly both) of the branches. Anal cirri (Fig. 1E) are lanceolate, larger than the postsetal lobes, and with spindle-like inclusions as figured by Hartman for the postsetal lobes. However, they are easily lost and are present on only one specimen.

Distribution: Off New England in 68-300 meters.

PSAMMODRILIDAE

Psammodrilus Swedmark

Psammodrilus balanoglossoides Swedmark

Figure 2 A, B

Psammodrilus balanoglossoides Swedmark 1952, p. 159, fig. 1-3; 1955, p. 141, figs. 1-19, pl. 3.

Material examined: Massachusetts, Cape Cod Bay, 41°49.5' N, 70°32' W, clean sand, 5.5 meters, station 1930, November 1967—2 specimens (USNM 43517); 41°46' N, 70°7' W, clean sand, intertidal, station 2212, May 1968—1 specimen (SEP).

Description: The specimens are up to 9 mm long and 0.2 mm wide. The head is bluntly pointed and is followed by a collarlike pharyngeal region (Fig. 2A). The six thoracic segments each bear a pair of ciliated filiform appendages, those of the first three segments being the longest and most conspicuous. The abdominal region consists of up to about 30 setigers. The abdominal uncini number up to 11 in a torus, and in

profile the uncini appear to have 4 teeth (as in Swedmark's figure 3, 1952). Actually an uncinus consists of a large main tooth surmounted by about 13 smaller teeth (Fig. 2B). It is difficult to determine the exact number and arrangement of the smaller teeth, even under oil immersion, because of the small size of the uncini. There are large ovoid yolky eggs ($100\ \mu\text{m}$ in greatest dimension) situated laterally in the abdomen of the specimen collected in May.

Distribution: Massachusetts, Baltic Sea, North Sea, English Channel, and France. Intertidal to 5.5 meters depth.

CAPITELLIDAE

Mediomastus Hartman; emended Hartmann-Schröder

Mediomastus ambiseta (Hartman)

Figure 2 C, D

Capitita ambiseta Hartman 1947, p. 409, pl. 45; 1969, p. 369, figs. 1-4.—
Reish 1968, p. 89.

Mediomastus ambiseta.—Hartmann-Schröder 1962, p. 143, pl. 18, fig. 119 A.

Material examined: Massachusetts, Buzzards Bay, $41^{\circ}30' \text{ N}$, $70^{\circ}53' \text{ W}$, mud, 20 meters, station R, 15 July 1969, G. R. Hampson, collector—many specimens (USNM 43520, SEP, HLS, KDH); vicinity of Wild Harbor, muddy sand and soft mud, 2 and 6 meters, October 1969 and June 1970, J. F. Grassle, collector, about 60 specimens (HLS, KDH).

Description: The largest specimens are about 20 mm long, up to 0.3 mm wide at the thorax, and have up to 50 segments. However, most specimens are smaller (less than 0.2 mm wide) and have about 40 segments. A pair of faint subdermal eyes is barely visible dorsally (Fig. 2C). The first segment lacks setae, segments 2-5 have only limbate capillary setae, and segments 6-10 have only hooded hooks. The boundary between the thorax and abdomen is usually indistinct, and segment 11 appears to be transitional. All abdominal neurosetae are hooded hooks that consist of a large tooth surmounted by 3 smaller teeth. The first 9-11 abdominal notopodia have only hooded hooks; in the next 1-4 notopodia the hooded hooks are usually replaced by 1 (occasionally 2) very slender hooded hook (Fig. 2D) and 1 (occasionally 2) capillary seta. However, in some worms, a notopodium in this region may have a normal hooded hook and a capillary seta or slender hooded hook; or hooded hooks may disappear as soon as capillary setae appear. The last 15-26 notopodia have only a single capillary seta. There is a digitate caudal appendage ventrally on the pygidium. Specimens collected in June and July have polygonal ($20\text{--}50\ \mu\text{m}$ diameter) or oval ($60\ \mu\text{m}$ diameter) eggs in the body.

Distribution: Massachusetts, southern California and Lower California, in intertidal and shelf depths.

SABELLIDAE

Laonome Malmgren*Laonome kroyeri* Malmgren

Laonome kroyeri Malmgren 1866, p. 400, pl. 27, fig. 85.—Banse 1963, p. 204, fig. 3a-b.—Fauvel 1927, p. 322, fig. 112 a-i.

Material examined: Massachusetts, Cape Cod Bay, 41°47.5' to 42°4' N, 70°7' to 70°31' W, sand, muddy sand, and sandy mud, 15.6 to 60 meters, 18 stations, 1967–1968—28 specimens (USNM 43521–5[7]; SEP[20]; KDH[1]). Buzzards Bay, 41°30' N, 70°53' W, mud, 20 meters, station R, 15 July 1969, G. R. Hampson, collector—1 specimen (SEP 2098).

Description: The specimens are up to 70 mm long and usually have 8 thoracic setigers; however, one large worm has 13 thoracic setigers. There are 5 to 8 pairs of radioles with pinnules and 1 to 2 pairs without pinnules in the branchial crown. The radioles lack eyes, have long bare filiform tips, and may or may not have faint bands of brownish pigment. The collar has long ventral lobes; in some specimens there is a wide dorsal gap in the collar (as in Fig. 85 E by Malmgren, 1866); but in other specimens the dorsal gap is narrow. Notosetae of the thorax are limbate and spatulate; the neurosetae are avicular uncini as figured by Banse (1963, fig. 3 A, B) rather than Fauvel (1927, fig. 112 i).

Distribution: Massachusetts, northern Europe, Sea of Japan, Kamchatka, Washington. In 15–60 meters.

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